



# THE UNIVERSITY OF OKLAHOMA

NORMAN · OKLAHOMA

December 2, 1949

Dr. Joshua Lederberg  
Department of Genetics  
College of Agriculture  
University of Wisconsin  
Madison, Wisconsin

Dear Lederberg:

Thank you very much for your letter of November 30 in which you seem to have an interesting problem. I appreciate your sending me the K-12 and W-1113 strains, though I confess it may be some time before I can examine them.

It is my opinion that the phenomenon you have observed may or may not be "direct antagonism" (whatever that means) in the sense that I used the term with regard to Aerobacter strains. As you will note in the reprint I am sending on "Antagonism by Aerobacter Strains", I failed to observe any zones of inhibition on plates massively seeded with the test organism and then massively streaked with the antagonist. I gather that our inocula were comparable, but I note one detail in which your technique differs. You used 3-4 ml. of "soft" agar poured over a nutrient agar plate. This detail might well be a critical one, as inhibition might be visible here and not be in a plate poured with 15 c.c. of ordinary agar inoculated with a suspension, which was my technique. I intend to test the strains you sent me by both techniques, and may I suggest that you do so. The results of such an experiment would indicate whether or not you are observing the same phenomenon, and would certainly be extremely interesting to me. Meantime, would you please inform me as to the actual agar content of your "soft" agar?

As to the immediate problem of obtaining resistant K-12 strains, I am afraid I can offer little encouragement. I have marked one paragraph in the reprint on "Antagonism by Aerobacter Strains" in which I attempted in vain to demonstrate resistant variants with five strains which seemed to afford very favorable conditions for development of such forms. Of course any validity which might be attached to these attempts for your work rests on the question of whether or not we have observed the same phenomenon.

I am sorry that I can be of no more assistance. Let me assure you of my genuine interest in this work, however, and I sincerely believe that cooperation of this sort between workers in different institutions is of inestimable value. Please let me hear from you again on this matter.

December 2, 1949

May I take a "rain check" on your offer of mutant strains?  
Very possible I might be able to use these at a later date.

Yours sincerely,

*E. Staten Wynne*

E. Staten Wynne  
Assistant Professor of  
Bacteriology

P.S. Sorry about the "-burg". And congratulations on putting the  
final -e on my name.

**WYNNE ES**

---

- ANTAGONISM BY AEROBACTER STRAINS  
J BACT 53(4):469-478 47 17R
- NORMAN JO—ON THE CONCEPT OF DIRECT ANTAGONISM  
IN BACTERIA  
J INFEC DIS 93(3):243-246 53 7R

[ 8/98 - could these be lethal conjugial plasmids?  
of F./Zinder Salmonella/E. coli ]